IN THE CLAIMS:

Please cancel claim 27 and amend the remaining claims as follows:

1.   (Currently Amended) A method for reliably storing data on disks, said method comprising:

writing a data block to be stored in a disk array;

combining an address of said data block ~~to~~ with a set of retrievable addresses;

periodically computing a function of said data to be stored in said disk array to produce a computation;

storing ~~the computed function~~ said computation on at least one spare disk;

on a disk failure in said disk array, updating ~~the computed function~~ said computation using said set of retrievable addresses to recompute only altered portions of said ~~function~~ computation; and

deleting said set of retrievable addresses.

2.   (Original) The method of claim 1, wherein said disk failure includes disk failures that are predicted to occur.

3.   (Original) The method of claim 1, wherein said function comprises a mathematical function.

4. (Original) The method of claim 1, wherein said function comprises an error correcting code.

5. (Original) The method of claim 1, wherein said address of said data block comprises an address of a corresponding portion of the computed function and said set of retrievable addresses comprises a set of addresses that describe portions of the computed function requiring updating.

6. (Original) The method of claim 1, wherein said disk array comprises at least one a RAID array.

7. (Original) The method of claim 1, further comprising reconstructing data stored on a failed disk onto at least one replacement disk.

8. (Original) The method of claim 1, wherein said steps of updating and deleting are skipped if said set of retrievable addresses exceeds a fraction of said data stored in said disk array.

9. (Original) The method of claim 1, wherein altered portions of said computed function are updated whenever a load on said disk array is below a threshold value.

10. (Original) The method of claim 1, wherein altered portions of said computed function that are less likely to be altered again are preferentially updated.

11.   (Currently Amended) A method of reducing data loss in a disk array, said method comprising:

      periodically storing redundant data into data blocks located on a spare disk;

      monitoring ~~said~~ disks in said disk array for disk failures ~~to occur~~;

      determining which of said data blocks contain <u>altered</u> redundant data ~~that~~<u>, wherein said altered redundant data comprises at least a portion of said redundant data that</u> has been altered ~~since~~ <u>subsequent to</u> an immediate previous time said redundant data was stored;

      recomputing <u>said</u> altered portions of said redundant data <u>to produce recomputed altered portions</u>; and

      storing ~~the~~ <u>said</u> recomputed altered portions in said data blocks.

12.   (Original) The method of claim 11, wherein said disk failures include disk failures that are predicted to occur.

13.   (Original) The method of claim 11, further comprising updating said data blocks with altered redundant data when said disk failures have occurred.

14.   (Original) The method of claim 11, wherein said disk array comprises at least one a RAID array.

15.   (Original) The method of claim 11, further comprising reconstructing data stored on a failed disk onto at least one replacement disk.

16.   (Original) The method of claim 13, wherein said step of updating said data blocks comprising altered redundant data is skipped if a number of said data blocks exceeds a fraction of said data stored in said disk array.

17.   (Original) The method of claim 12, wherein said data blocks containing altered redundant data are updated whenever the load on the disk array is below a threshold value.

18.   (Original) The method of claim 17, wherein the data blocks containing altered redundant data that is less likely to be altered again are preferentially updated.

19.   (Currently Amended) A system for reducing data loss in a disk array comprising:

        a storage unit operable for periodically storing redundant data into data blocks located on a spare disk;

        a monitor operable for monitoring the disks in the array for disk failures to occur;

        a directory operable for determining which of said data blocks contain <u>altered</u> redundant data ~~that~~, <u>wherein said altered redundant data comprises at least a portion of said redundant data that</u> has been altered ~~since~~ <u>subsequent to</u> an immediate previous time said redundant data was stored; and

a computer operable for updating only portions of said redundant data that has been altered.

20.   (Original) The system of claim 19, wherein said disk failures monitored include disk failures that are predicted to occur.

21.   (Original) The system of claim 19, further comprising a controller operable for updating said redundant data when said disk failures have occurred.

22.   (Original) The system of claim 19, further comprising at least one replacement disk operable for storing reconstructed data previously stored on a failed disk.

23.   (Original) The system of claim 19, wherein said directory is operable for marking the recomputed redundant data in said directory.

24.   (Original) The system of claim 19, wherein said disk array comprises at least one a RAID array.

25.   (Original) The system of claim 19, further comprising a controller operable for updating said redundant data whenever a load on said disk array is below a threshold value.

26.   (Original) The system of claim 25, wherein said controller preferentially updates redundant data that is less likely to be altered again.

27.   (Cancelled).